The following commentary is offered with the objective of helping you to improve your plan which addresses many issues needing attention.

One would expect the Stragegic Plan to outline major problems in the current environment, to outline a future environment in which these problems are alleviated in specific ways, and to call out the strategy and trends which will get us there. Further, the relationship of this plan to other plans and the budget process should be called out. While a good job has been done of bringing extant projects and programs together into this plan, the volume of them somewhat conceals the underlying strategy of the plan.

The difficulty seems to stem from stating only one objective of the plan and then trying to structure everything to support it. In actuality there are a number of major objectives embedded in the plan aimed at resolving problems but not necessarily at automating the production of intelligence. Some of these objectives are a restatement of ongoing programs and some are new. Some indeed are inferred but not specifically identified, as for example, the major increase in data communications networking, resolution of the security issues raised by external (community) network connections, collection of specific requirements for service, development of effectiveness measurements for automation and the development of criteria for management of resources.

The following comments relate to the plan more specifically:

1. Were the S&T facilities, FBIS and OS communications intentionally omitted?

2. While overall information services budgeting kept pace with inflation, communications spending did not. Communications spending lagged over 40% behind inflation while traffic increased 300% from 1970-1979. The result is the fragile network noted and the need for recapitalization. We will be in a strained and precarious position for several more years.

3. The plan summary advocates integration, yet the technical computing discussion advocates segregation and further cites security and sensitivity as the rationale. Why is the scientific computing facility not part of the ODP plan? Continued segregation implies isolated communications networks or additional protection in an integrated network. Which is advocated?

4. The plan calls for increased central computer capacity, and at the same time, cites the need for an increase in distributed processing to reduce the reliance on these central systems (Page II-9). Additional discussion on this issue (central vs distributed) and distributed processing, in particular, appears appropriate.

5. The Washington Area Communications System (WACS) does not correspond to current plans in OC. What is the mechanism for such plans to become institutional, i.e., what are the steps necessary to get from the plan to budget and implementation?

6. The use of a bus local area network is projected by the plan. Since bus/grid decisions have been difficult in the past, the plan should include some initial activity to study the tradeoffs prior to establishing a bus project. Alternatively, the plan should provide more justification for the bus.

7. Several of the projects, such as WACS and store-and-forward voice, project schedules which would imply funding in FY-83 and FY-84. Since the plan seems likely to place new initiatives in FY-85 and beyond budgets, the project schedules may be too optomistic.

8. Figure II.6 lists the DA&I responsibilities. The definitions of "development support" and "development" are not clear, and there may be some confusion over what the tables implies. For instance, under security, OS and OC are listed under development support with IHSA and ODP doing development. Yet, it appears that the WACS and MERCURY have a significant security role employing OC development activity.

9. With the exception of terminals currently connected to existing central facilities, it appears that future terminals will require a TAS for connecting to the network (Figure 8.1). Although semantics may be a problem here, it would appear that the TAS is not necessary for connectivity on a local area network (LAN).

10. If the availability numbers quoted are applied to each transaction, then they are probably unaffordable. If applied to the success of each session, using back-up resources as necessary, then they may be achievable. The subject needs elaboration as the last percentage points are expensive.

11. The plan seems to call for a homogeneous environment with a common user command language interface to heterogeneous applications and hosts. While the network could map different terminal types protocols, and some basic user command language functions to a universal interface, it is probably impractical to achieve an extensive universal command language.

12. The Network Structured Model does not show the proposed technical facility and shows each computer center having some directly connected terminals through FEPs. Since these terminals are not connected to WACS, it appears that they would have less capability to access other hosts and centers. Is this intended?

13. Dissemination is discussed in terms of content-dependent addressee determination. While some users indeed find this invaluable for many classes of receipts, much dissemination is based on addressee designation. Most recipients in DDA and S&T would not require the more sophisticated and expensive dissemination. Further, if paper is curtailed, then the retrieval against the (large) data base will make it a new major facility.

14. Private files do not appear to be included under automation functions. They will be.

15. Teleconferencing is called out but not the related communications facilities.

16. Artificial Intelligence topics could be provided as examples. It is given pro forma service only in the plan.

17. Given the criticality of terminal characteristics to achieving a consistent architecture, and the close interplay between the terminals and the network, it may be advisable for OC and IHSA to play a role in terminal definition/acquisition along with ODP.

18. Emergency Communications Equipment is shown being procured in 1984 in figure D.1, but funding is not available until FY-85 in figure D.4.

19. It should be noted that field stations can operate over x-band satellites only and that Milstar is not here yet.

20. HF circuits currently operate at 300 baud to 600 baud. (Figure D-7). Crypto operates at higher data rate now as well.

21. The SKYLINK program operates now and supports all forms of overseas communications including CRAFT as it is being brought into service. It should be noted we are currently evaluating Time Division Multiple Access (TDMA) techniques for SKYLINK, which will provide effective channel rates in excess of 19 Kbs.

22. The Offices of Security and Communications took the position that a bus must be encrypted. The plan should direct re-examination of the issues and problems before approving a red bus. We need to define "reasonably secure."

23. In addition to budget constraints, the personnel constraints will continue to keep us from attacking some of the new problems outlined in the plan. The plan should discuss personnel levels required as it does budget levels since each is constrained independently.

24. A statement is made that most projects will require increased resources to satisfy this plan, but the result will be a reduction. Further clarification would be helpful.

25. Non-electronic information is not discussed but will be with us always. Was the omission intentional? If ADSTAR use expands, a significant communications need will be generated, for example.

26. Establishing cost criteria for services which are then supplied at no cost will not motivate frugality. While a charge-back system is counterproductive, definition and application of management effectiveness criteria and usage constraints are essential in limiting ineffective use of IHS resources.

27. In figure D.1, the grid installations will require all of 1984 and MDS-Stat Mux and links run through 1986.

28. Black telephones should be addressed as a major resource.

29. Secure voice does not seem to receive a proportionate emphasis as a class of existing/future services. In addition to voice store-and-forward (VSF), current applications indicate a growing trend to utilize secure voice for crisis management overseas and, in conjunction with the KY-71, for data and fax applications domestically.

30. The technical computer seems to require a separate terminal network and the reasons for separation seem to constitute an indictment of our security. It seems to warrant further study.

31. Security does not discuss the policy issue of clearance proceses. Recent examples of unacceptable performance indicate that our posture of clearing only polygraphed individuals for data system access is sound.

32. The addition of a glossary to define key elements would be a useful adjunct to the appendices.

In general, the plan brings into focus a dramatic increase in data communications needs in addition to compound growth in other communications services. The plan should provide the forum for in-depth discussion of elements not now in organization plans and for prompt resolution of shortfalls in those plans.